

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Reviewed by: Ralph Gosney, P.E.

GENERAL INFORMATION:

Source Name:	Estron Chemical, Inc.
Mailing Address:	P.O. Box 127, Calvert City, Kentucky 42029
Date application received:	October 24, 2005
SIC/Source description:	2869, Industrial Organic Chemicals, Not Elsewhere Classified
Source ID #:	021-157-00015
Source A.I. #:	2934
Activity #:	APE20040001
Permit number:	F-05-040

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
__Minor	<input checked="" type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input checked="" type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM/PM ₁₀	0.135/0.135	16.97/16.97
SO ₂	0.031	7.93
NO _x	1.18	16.59
CO	0.988	12.64
VOC	53.53	< 90.0
Lead	--	--
Individual HAP >10 tpy (by CAS)	NA	NA
Total HAPs > 25 tpy	NA	NA

Actual emissions are from the Kentucky Division for Air Quality's 2005 Emissions Inventory report.

SOURCE DESCRIPTION:

An application for an initial source-wide Conditional Major operating permit for Estron Chemical, Inc. (Estron) for the operation of polymer resins manufacturing facility, located in Calvert City, Kentucky, was received by the Division on October 4, 2005.

Estron is currently operating under permit S-97-086, which was issued under former regulation 401 KAR 50:031. The current air permit serves to limit Estron's emissions to less than major source levels for criteria pollutants. Permit S-97-086 expired on December 15, 2000, and Estron originally submitted a permit renewal application on June 20, 2001 followed by updated information on October 4, 2005.

The Standard Industrial Classification (SIC) Code for this source is 2869, *Industrial Organic Chemicals, Not Elsewhere Classified*. This facility consists of following equipment/processes used in manufacturing of polymer resins for the coating industry.

- Boilers and heaters
- Batch reactors consisting of condensers
- Product storage tanks
- Grinders, blenders, mixers and extruder
- Miscellaneous piping, valves, etc.

This permit also corrects a permit formatting error from Permit S-97-086, which listed products (resins) as individual emission points. However, the reactor trains are the actual emission units, and not the products produced in the reactor trains. Therefore, the emission points for all the equipment/processes except the boilers have been changed from what was listed in Permit S-97-086.

Estron has requested voluntary permit conditions to limit the facility's potential to emit (PTE) regulated air pollutants below major source thresholds. Therefore, the source is subject to the

provision of 401 KAR 52:030, *Federally Enforceable Permits for Nonmajor Sources*. This permit is the initial Conditional Major operating permit for this source.

EMISSION AND OPERATING CAPS DESCRIPTION:

Marshall County is designated as attainment for all criteria pollutants. To preclude the applicability of 401 KAR 52:020, Title V permits, as defined in 401 KAR 52:001, Definitions, source-wide emissions shall not equal or exceed the following limits on any monthly rolling 12-month total basis:

- a. Volatile organic compound (VOC) emissions: 90 tons per year; and
- b. Particulate matter less than 10 microns (PM10) emissions: 90 tons per year.

The permittee has also requested the following limits:

- c. Total hazardous air pollutant (HAP) emissions: 22.5 tons per year; and
- d. Single HAP emissions: 9 tons per year.

Compliance with these limits shall also make the requirements of 401 KAR 51:017, *Prevention of significant deterioration of air quality*, and 40 CFR Part 63 for major sources of HAP emissions, as incorporated by reference at 401 KAR 63:002, not applicable to this source.